Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims

1. (currently amended) A control solenoid apparatus comprising:

a valve body having a first longitudinal cavity on a first axis, a second longitudinal cavity on a second axis ~~different from the first axis~~, and a third longitudinal cavity traversing the first and second longitudinal cavities;

a spool valve slidably positioned in the first longitudinal cavity, and wherein movement of the spool valve acts directly on a fluid contained in the third longitudinal cavity wherein a first end of the spool valve and an end of the first longitudinal cavity define an end cavity;

a pressure sensor for sensing pressure in the end cavity; and

a solenoid positioned adjacent or in the second longitudinal cavity, the solenoid having an actuator slidably positioned ~~on the second axis~~ in the second longitudinal cavity, and wherein movement of the actuator acts directly on the fluid contained in the third longitudinal cavity and moves the spool valve along the first longitudinal cavity.

2. (original) The apparatus according to claim 1, wherein the first axis and the second axis are substantially parallel to one another.

3. (original) The apparatus according to claim 1, further comprising:

a valve arranged in an opening between the second longitudinal cavity and the third longitudinal cavity, and configured to communicate a force created by the movement of the actuator to the fluid contained in the third cavity.

4-5. (canceled)

6. (currently amended) The apparatus according to claim [[5]] 1, wherein the pressure sensor is configured to detect change of fluid pressure contained in the end cavity caused by movement of the spool valve.

7. (currently amended) The apparatus according to claim [[5]] 1, wherein the valve housing further comprises a supply port, a control port, and an exhaust port, each being fluidly coupled to the first longitudinal cavity.

8. (original) The apparatus according to claim 7, wherein the movement of the spool valve in a first direction progressively opens the supply port and closes the exhaust port and movement of the spool valve in a second direction progressively closes the supply port and opens the exhaust port.

9. (original) The apparatus according to claim 7, wherein the fluid from the control port flows in and out of the end cavity in response to movement of the spool valve.

10. (original) The apparatus according to claim 9, wherein the spool valve is shaped generally to conform to a shape of a wall bounding the first longitudinal cavity, the spool valve having a groove in its outer surface forming a peripheral cavity bounded by a surface of the groove and the wall of the first longitudinal cavity.

11. (original) The apparatus according to claim 10, wherein the end cavity and peripheral cavity are fluidly coupled to one another.

12. (original) The apparatus according to claim 10, wherein the spool valve comprises a feedback channel fluidly coupling the end cavity and the peripheral cavity to one another.

13. (original) The apparatus according to claim 11, wherein the control port is fluidly coupled to the peripheral cavity.

14. (previously presented) The apparatus according to claim 10, wherein the exhaust port is variably and fluidly coupled to the peripheral cavity.

15. (original) The apparatus according to claim 14, wherein movement of the spool valve in a first direction progressively closes the exhaust port with respect to the peripheral cavity and movement of the spool valve in a second direction progressively opens the exhaust port with respect to the peripheral cavity.

16. (previously presented) The apparatus according to claim 1, wherein the spool valve further comprises:

an inner longitudinal cavity formed in the spool valve having a first open end at an end of the spool valve enabling fluid flow between the inner longitudinal cavity and the third longitudinal cavity.

17. (original) The apparatus according to claim 16, wherein movement of the spool valve in a first direction causes the fluid to flow from the inner longitudinal cavity to the third longitudinal cavity and vice-versa.

18. (original) The apparatus according to claim 1, further comprising an electrical controller electrically connected to the solenoid.

19. (cancel)

20. (currently amended) The apparatus according to claim [[19]] 18, wherein the pressure sensor connects to the electrical controller for processing pressure readings.

21. (currently amended) A control solenoid apparatus comprising:

a valve body having a first longitudinal cavity on a first axis, a second longitudinal cavity on a second axis different from the first axis, and a third longitudinal cavity traversing the first and second longitudinal cavities;

a spool valve slidably positioned in the first longitudinal cavity, and wherein movement of the spool valve acts directly on a fluid contained in the third longitudinal cavity, wherein a first end of the spool valve and an end of the first longitudinal cavity define an end cavity;

a pressure sensor for sensing pressure in the end cavity; and

a solenoid positioned adjacent or in the second longitudinal cavity, the solenoid having an actuator slidably positioned on the second axis, and wherein movement of the actuator acts directly on the fluid contained in the third longitudinal cavity and moves the spool valve along the first longitudinal cavity;

wherein the spool valve moves in an inverse proportional relationship with the actuator.

22. (previously presented) The apparatus according to claim 21, wherein movement of the actuator in a first axial direction causes a change in fluid pressure in the third longitudinal cavity, which causes the spool valve to move in a second axial direction.